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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/071,790 | 02/07/2002 | John Marshal Reed | 112056-0033 | 2877 |
| 24267 | 7590 | 03/24/2006 | | |
| CESARI AND MCKENNA, LLP 88 BLACK FALCON AVENUE BOSTON, MA 02210 | | | EXAMINER ELAMIN, ABDELMONIEM I | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2116 | |
| DATE MAILED: 03/24/2006 | | | | |

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|--------------------------------------|------------------------------------|--|
| Office Action Summary | Application No. 10/071,790 | Applicant(s) REED ET AL. | |
| | Examiner A Elamin | Art Unit 2116 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention:

2. Claim 19 recites the limitation "the copy of the old kernel" in line 2. There is insufficient antecedent basis for this limitation in the claim

Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claims 17 and 23 are rejected under 35 U.S.C. 101 because the claims are non-statutory as not being tangibly embodied in a manner so as to be executable.

- 5.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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7. Claims 1-4, 7-10, 13-23 are rejected under 35 U.S.C. 102(e) as being anticipated by Fuse et al, US. Pat. No. 6,981,136.

8. Claims 1, 13, Fuse teaches a removable nonvolatile memory device [*memory card 2 of Fig.2*] for use in a file server having an operating system kernel [*title, abstract*], comprising:

a plurality of partitions [*blocks*], each of the plurality of partitions capable of storing differentiated information [*abstract*];

a first kernel image, the first kernel image stored in a first partition of the plurality of partitions [*col. 22, lines 28-29*]; and

a second kernel image, the second kernel image stored in a second partition of the plurality of partitions [*col. 22, line 30*].

9. Claim 2, Fuse teaches the second kernel image is a last known good kernel [*col. 2, 28-33*].

10. Claim 3, Fuse teaches a set of boot instructions including instructions for booting from the first kernel image [*col. 2, lines 52-57*].

11. Claim 4, 7, Fuse teaches instructions for booting from the second kernel image if an error event occurs during booting from the first kernel image [*the spare boot block, see also col. 9, lines 31-40*].

12. Claim 8, Fuse teaches the removable nonvolatile memory device is a compact flash [*memory card 2 of Fig. 2*].

13. Claim 9, Fuse teaches the second kernel image is a last known good kernel [*the second block always contains a copy of the latest updated boot data, see also Fig. 8 and related disclosure*].

14. Claim 10, Fuse teaches the set of boot instructions are contained in firmware within the file server system [*data processing apparatus 1 of Fig. 1*].

15. Claim 14, Fuse teaches the current boot kernel location is a first partition of the removable nonvolatile memory device [*the system always boots from the first block*].

16. Claim 15, Fuse teaches the last known good kernel location is a second partition of the removable nonvolatile memory device [*the second block always contains a copy of the latest updated boot data, see also Fig. 8 and related disclosure*].

17. Claim 16, Fuse teaches one or more storage disks operatively interconnected to the file server system [*element 5 of Fig. 1*].

18. Claims 17-18, 21, 23, Fuse teaches a method for installing an upgrade kernel in a computer system having a removable nonvolatile memory device [*memory card 2 of fig. 2*], the removable nonvolatile memory device having at least a first partition and a second partition [*first and second block*], the computer system currently executing a copy of an old kernel stored in the first partition of the removable nonvolatile memory device [*abstract*], the method comprising the steps of:

copying the old kernel from the first partition to the second partition [*the second block contains a redundant boot data*];

adjusting a set of boot variables so that the computer will boot from the second partition [*since the first block is being updated, it can not be used as a boot block and the second block is used as a boot block, see Fig. 8 and related disclosure at col. 15*];

copying a stored copy of the update kernel to the first partition [*rewriting updated boot data into first block*]; and

adjusting the set of boot variables so that the computer will boot from the first partition [col. 16, lines 15-20].

19. Claim 19, Fuse teaches verifying the copy of the old kernel written to the second partition before adjusting the set of boot variables so that the computer will boot from the second partition *[inherently, the old copy would be verified before adjusting the computer to boot from the second block, see also the discussion about updating boot data in cols. 15 and col. 16, lines 47-49]*.

20. Claims 20 and 22, Fuse teaches verifying the copy of the upgrade kernel written to the first partition before adjusting the set of boot variables so that the computer will boot from the first partition *[inherently, the updated copy would be verified before adjusting the computer to boot from the first block, see also the discussion about updating boot data in cols. 15 and col. 16, lines 47-49]*.

Claim Rejections - 35 USC § 103

21. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

22. Claims 5-6, 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fuse et al, US. Pat. No. 6,981,136.

23. Claims 5-6, 11-12, Fuse fails to teach a set of diagnostic software stored in a third partition and a diagnostic log stored in a fourth partition.

Official Notice is taken that both the concept and the advantages of diagnostic software

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and a diagnostic log are old and well known in the art.


It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teaching of Miyazaki to include a set of diagnostic software stored in a third partition and a diagnostic log stored in a fourth partition, because it determines the integrity of the boot data.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to A Elamin whose telephone number is (571) 272-3674. The examiner can normally be reached on MON-FRI 9:30 AM - 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynne Browne can be reached on (571) 272-3670. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


A. Elamin
Primary Examiner
Art Unit 2116

March 19, 2006